PP4

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/808,997	03/16/2001	Jiann-Jyh (James) Lay	023925-00005	5092

32294   7590   12/08/2003

SQUIRE, SANDERS & DEMPSEY L.L.P.
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8000 TOWERS CRESCENT
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EXAMINER
HUYNH, KIM NGOC

ART UNIT	PAPER NUMBER
2182	6

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/808,997	LAY, JIANN-JYH (JAMES)
	Examiner	**Art Unit**
	Kim Huynh	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _10/28/03_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-23_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-23_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _3_ .	6) ☐ Other: .

U.S. Patent and Trademark Office

PTO-326 (Rev. 04-01)   Office Action Summary   Part of Paper No. 6

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2.   Claims 1-10 and 15-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Simmons et al. (US 6,167,054).

Claims 1 and 8, Simmons discloses a method of flow control management of data packets having steps of determining each time data is written to/freed from memory (col. 11, l. 62 through col. 12, l. 28) and calculating how much total memory is being used (via free buffer counter 246) and comparing the total memory to a first predetermined threshold (low) and issue a command indicating a threshold has been reached which indicates that the memory is becoming full (see Fig. 6, 214-224).

Simmon also discloses using memory implemented as a linked list with pointers pointing to the next memory location in the link list. Please note the free frame pointer data from free buffer pool 104 specifies a location of the external memory, col. 7, ll. 25-29 wherein the overflow data (frame pointer) are located in the overflow queue area 110 of the external memory 34, col. 8, ll. 42-53) and the overflow area is implemented with link list (col. 10, ll. 13-46).   Please note the recitation of the pointer and linked list of the memory are not limiting.

Claim 2-5, Simmons discloses the step of determining data being written/freed from memory comprising step of receiving indication that the memory has successfully received or transmit the data packet over the bus (col. 12, last paragraph).

Claims 6-7, Simmons discloses the steps of calculating total memory used by increment and decrement a counter each time data is being written/read to/from memory.

Claims 9-10, Simmons discloses step of comparing and issuing a command when a second threshold is reach (high), as for the recitation that the command is indicates data being dropped. Please note that during the suspension of data transmission (PAUSE period), no data is being transmitted/received by the network, it is inherent that data transmitted to the switch is being dropped during that period.

Claims 15-19, Simmons discloses the apparatus for performing the method of above with memory interface 32 connected to the bus and memory (34 and 104), receive and transmit ports 64-66, flow control manager 12 having bus monitor 65, counter 246 and comparator (214-222) wherein bus monitors the data packets transmitted and counter is incremented and decremented per data is written/read into the memory (col. 11, l. 62 through col. 12, l. 28).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-23 are rejected under 35 U.S.C. 103(a) as being obvious over

Simmons et al. (US 6,167,054) in view of Lau et at (US 5,893,162).

Claims 1, 11, 8, 15, and 20 Simmons discloses a method of flow control

management of data packets having steps of determining each time data is written

to/freed from memory (col. 11, l. 62 through col. 12, l. 28) and calculating how much

total memory is being used (via free buffer counter 246) and comparing the total

memory to a first predetermined threshold (low) and issue a command indicating a

threshold has been reached which indicates that the memory is becoming full (see Fig.

6, 214-224).   Simmon also discloses using memory implemented as a linked list with

pointers pointing to the next memory location in the link list (free frame pointer data from

free buffer pool 104 specifies a location of the external memory, col. 7, ll. 25-29 wherein

the overflow data (frame pointer) are located in the overflow queue area 110 of the

external memory 34, col. 8, ll. 42-53) and the overflow area is implemented with link list

(col. 10, ll. 13-46).

Lau discloses the use of linked list with head pointer and tail pointer to

determined the memory used (col. 5, ll. 13-23) in order to readily adaptable for VLSI

implementation and for handling high speed telecommunications information dictated by

the data rate of real time telecommunications signals (col. 1, ll. 45-52).

It would have been obvious to one having ordinary skill in the art to modify the

invention of Simmons to implement the teaching of the linked list with head and tail

pointers in order to take advantage of the benefits taught by Lau.

Claims 1-7, 9-10, and 14-19 are rejected as indicated above.

Claims 16-19 and 21-23 are similar to claims 2-5 and 9-10 and therefore are

rejected accordingly.

Response to Arguments

5.   Applicant's arguments filed on 10/28/03 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Kim Huynh whose telephone number is (703) 308-

1678.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

3900.
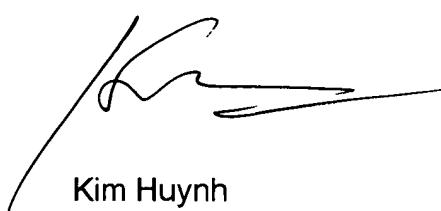
Kim Huynh
Primary Examiner
Art Unit 2182

KH
December 2, 2003